

. Description of New Species of *Parapodisma* from Korea  
(Orthoptera: Acrididae)

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ABSTRACT

A new species of the genus *Parapodisma*, *P. bandii* sp. nov. is described and illustrated from the mountain Halla in the Southern Korea. This new species is easily distinguished from other similar species by the structure of male genital organ and tegmina.

INTRODUCTION

Since the genus *Parapodisma* was erected by Mishtshenko (1947) based on *Pezotettix mikado* Boliver (1890), to date none species of the genus have been recorded from Korea. 14 species of the genus *Parapodisma*, however, have been recorded from Japan and Taiwan by Inoue (1979), Yamasaki (1980), Huang (1983), Kobayashi (1983, 1986) and so on.

In the course of scientific survey, an unnamed species belonging to the genus *Parapodisma* was collected from the mountain Halla in the Southern Korea. Although collection contains a species it is very interesting because the genus *Parapodisma* is firstly added to the fauna of Orthoptera of Korea.

In this paper this species is named as *Parapodisma bandii* sp. nov., and its characters are described and illustrated in the following.

Additionally, the authors wish to express their cordial thanks Prof. Y. J. Kwon of Kyungpook Nat. Univ. for his interesting collection and kind guidance.

All the type-specimens treated herein are deposited in the collection of Systematic Entomology Lab. of Kyungpook National University.

## DESCRIPTION

*Parapodisma bandii* sp. nov.  
(Fig. 1. A-H; Fig. 2. A-E)

**Male:** Body medium, general coloration brownish green: head and pronotum green, with a pair of broad dark stripes on lateral sides from the behind area of eyes to anterior part of pronotum; antennae pale green with pale brownish green apically, or pale brownish; tegmina pale brownish green; abdomen pale brownish green, usually with blackish stripes of various sizes on the lateral side; legs generally pale green, with hind femora pale brown on the under surface and hind tibiae with black spines.

Head short, about 0.6 times as long as pronotum; antennae stringly, about 1.4-1.5 times longer than head and pronotum combined, composed of 25 articles; face obliquely receding; frontal ridge subparallel with distinct sulcus; facial lateral carinal distinct; eyes large, oval, the vertical diameter about 1.3 times as long as horizontal diameter.

Pronotum subcylindrical, median keel low, weak, cut by 3 transverse sulci; the length of prozona as long as metazona length; prozona impunctate with pubescences; metazona densely punctate with pubescences; posterior margin rounded, produced posteriorly.

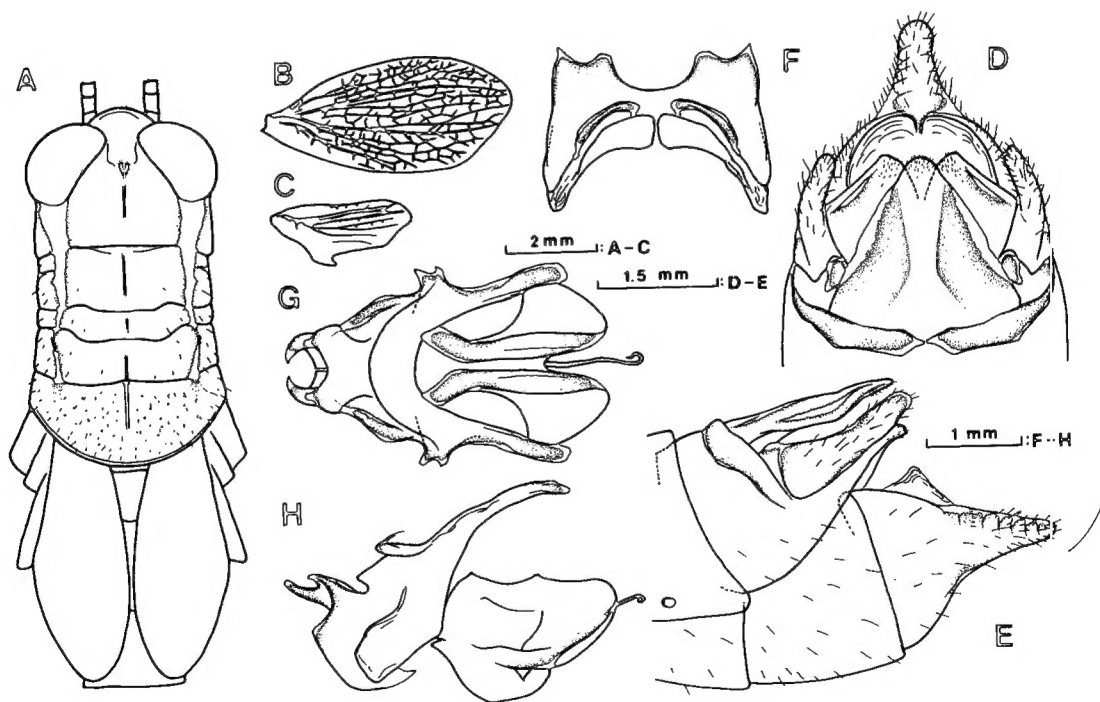


Fig. 1. *Parapodisma bandii* sp. nov., male. A: Anterior half of body in dorsal view; B: right tegmen; C: right wing; D: genital segments in dorsal view; E: ditto, lateral view; F: epiphallus in dorsal view; G: phallus in dorsal view; H: ditto, lateral view.

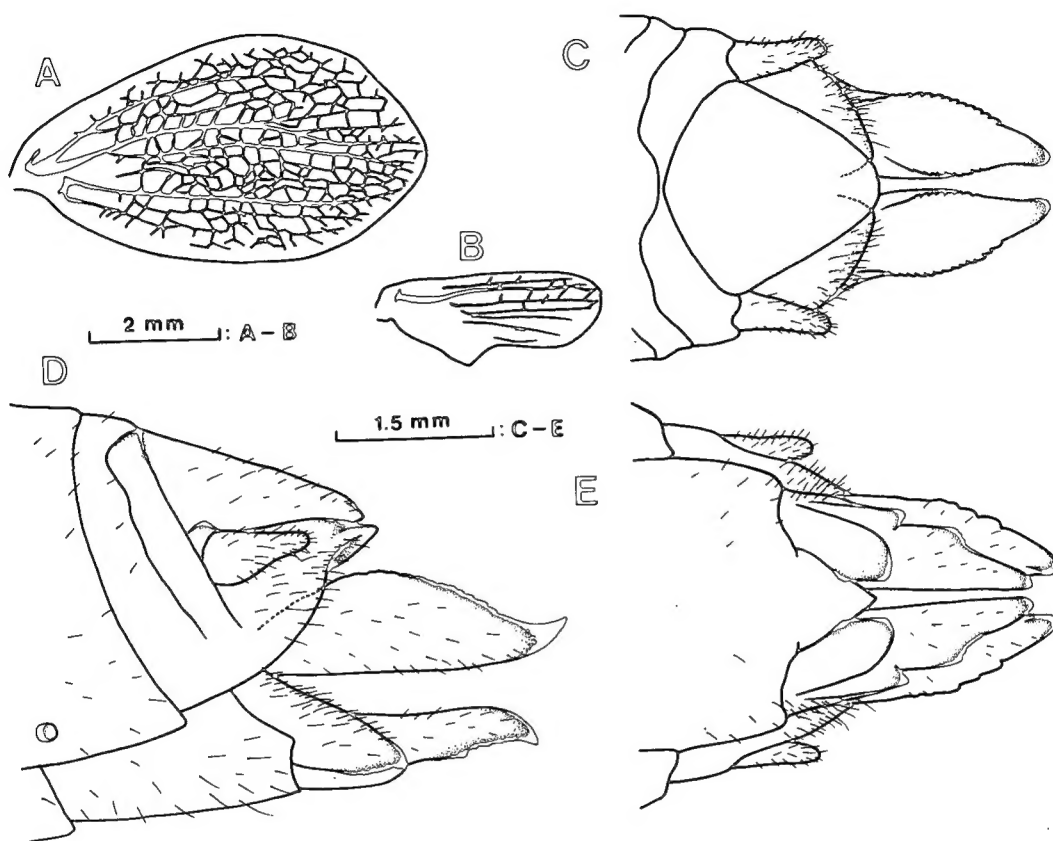


Fig. 2. *Parapodisma bandii* sp. nov., female. A: Right tegmen; B: right wing; C: genital segments in dorsal view; D: ditto, lateral view; E: ditto, ventral view.

Prosternal process conical, apex slightly pointed; the width of interspace between mesosternal lobes slightly broader than its length.

Tegmina short and oval, reaching the posterior margin of the 2nd abdominal tergite, about 2.2 times as long as the width at broadest, widest at apical 1/2, and situated side of abdomen, nearly reaching each other.

Wings small and degenerated, about 1/2 as long as tegmina.

Hind femora slender; length of femora about 4 times its greatest width; dorsal side of hind tibiae with 10 spines on the external margin and 10 on the internal one, which become smaller proximally.

Supra-anal plate nearly triangular; medio-longitudinal carinae widely separated at base, sulcus shallow; length of plate almost equals its greatest width; apex of supra-anal plate rounded.

Serci long and conical, slightly curved inwards, the base wide, and narrower apically, apex rounded slightly extending the posterior margin of supra-anal plate.

Subgenital plate subconical, slightly pointed roundly at the apex.

**Female:** Body larger than that of male, general coloration brownish green; head and pronotum green or pale green, with a pair of broad dark stripes on lateral sides behind eyes, and sometimes on anterior part of pronotum; antennae pale brown; tegmina pale brownish green; abdomen pale brownish green; legs generally pale green, with hind femora pale brown on the under surface and hind tibiae with black spines.

Head short, about 0.5 times as long as pronotum; antennae almost as long as length of head and pronotum combined, composed of 25 articles; face obliquely receding; eyes large, oval, the vertical diameter 1.5 times as long as horizontal diameter.

Pronotum gradually widened towards posterior margin, with 3 transverse sulci on dorsum, median keel low and weak; metazona coarsely punctate with pubescences.

Prosternal process conical, apex slightly pointed.

Tegmina short and oval, larger than that of male, about 1.8 times as long as width, widest at apical 1/2, reaching 1/3 of the posterior part of the 2nd abdominal tergite, nearly reaching each other.

Wings small and degenerated, about 0.6 times as long as tegmina.

Hind femora slender; length of femora about 4 times its greatest width; dorsal side of hind tibiae with 7-10 spines on the external margin and 10 on the internal one, which become smaller basally.

Supra-anal plate elongated and triangularly shield-shaped with a slightly arcuate transverse impression at the middle and weakly concave mesally.

Cerci short, straight and conical.

Ovipositor valve short, straight with a pointed apex, and irregularly serrated along the external edge.

**Measurements (in mm):** Body length, male 21.1-26.0 (25.0 in holotype), female 27.0-30.0; antennal length, male 10.5-12.0 (11.5 in holotype), female 9.1-11.0; head width (including eyes), male 3.5-3.9 (3.7 in holotype), female 4.2-4.4; hind femoral length, male 11.5-13.0 (12.0 in holotype), female 14.0-15.0.

**Type-examined:** Holotype male, Mt. Hallasan (1800-1900 m), Jeju Is., S. Korea, 6, VIII, 1984, Coll. Y. J. Kwon; Paratypes 15 males, 7 females, same data as holotype; 3 males, 1 female, 10, VIII, 1984; 4 males, 11, VIII, 1984, all the same locality and collector.

**Remarks:** This new species somewhat resembles *P. yasumatsui* Yamasaki, but is easily distinguished from the latter by male subgenital plate which is not pointed narrowly in apex, and by male cerci which is not slender narrowly, and by shape and structure of phallus.

#### REFERENCES

- Bey-Bienko, G., 1929. Studies on the Dermaptera and Orthoptera of Manchuria. Konowia, 8(2): 97-110.  
\_\_\_\_\_, 1930. Further Studies on the Dermaptera and Orthoptera of Manchuria.

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- Ann. & Mag. Nat. Hist. S. 10(5): 493-500.
- \_\_\_\_\_, 1931. On some Orthoptera from Northern Korea. Bol. Soc. Esp. Hist. Nat., 31: 673-678.
- Dovnar-Zapolskij, O.P., 1932. Zur Kenntnis der paläarktischen Podismini. Trav. Inst. Zool. Acad. Sci. USSR., I: 253-268.
- Hebard, M., 1924. Studies in Japanese Acrididae (Orthoptera). Trans. Am. Ent. Soc., 50: 209-224.
- Hung, C.-M., 1983. One new species of *Parapodisma* from Japan (Orthoptera: Acrididae: Catantopinae). Act. Ent. Sin., 26(4): 457-458.
- Ikonnikov, N., 1913. Über die, von P. Schmidt aus Korea mitgebrachten Acridiodeen. Kusnetzki: 22pp.
- Inoue, M., 1979. Two new species of the genus *Parapodisma* from Western Japan (Orthoptera: Acrididae). Proc. Jap. Soc. Syst. Zool., 16: 58-64, pl. 2.
- Kobayashi, M., 1983. A New Species of the Genus *Parapodisma* (Orthoptera, Acrididae) from Central Japan. Kontyû, 51(4): 647-652.
- \_\_\_\_\_, 1986. A New *Parapodisma* Species (Orthoptera, Acrididae) from Central Honshu, Japan. Ibid. 54(3): 513-518.
- Tsyplenkov, Ye. P., 1970. On Grasshoppers (Orthoptera, Acridoidea) of the Korean Peoples' Republic Democratic Republic. Entomol. Obozr. 49(2): 355-359.
- Yamasaki, T., 1980. A new *Parapodisma* Species (Orthoptera, Catantopidae) from Kyushu, Japan. Annot. Zool. Jap., 53(1): 50-55.